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PROJECT NAME: TELKWA 62.20	JOB NUMBER: CNRAIL0802	PAGE NO: OF
BULKLEY RIVER CROSSING WIDENING OF 24.0m SPAN, TPG BRIDGE	DESIGNED BY: DGT	CHECKED BY:
TASK: (7.2) SIDE-TRACK ABUTMENTS	DATE: 31-Dec-08	DATE:
SUBTASK: (7.2.2) LOADS		

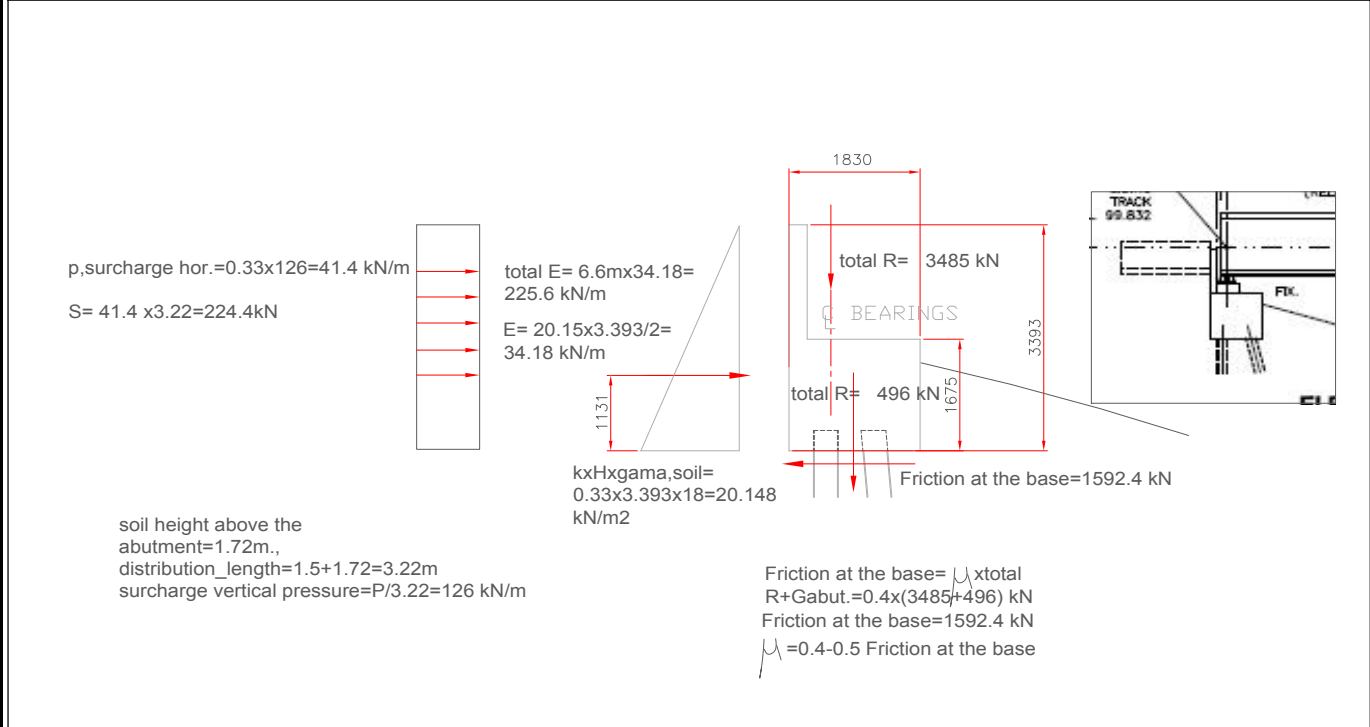
REFEERNCES:

This calculations § 6.5.

7.2.2.1. Dead, Live and Wind load

This calculations § 6.5. Bearing reactions

7.2.2.2. Earth Load



f. Live load impact shall not be considered in the design of an abutment or pier unless the bridge bearings are supported by a structural beam, such as the seat of a spill-through abutment or a pier cap supported by individual columns, piles, or shafts. In such a case, the impact shall be applied to the beam only, and not to footings, or piles.

b. In calculating the surcharge due to track loading on an abutment and on wingwalls that are in line with the abutment backwalls, the entire load shall be taken as distributed uniformly on the surface of the ballast immediately below the tie, over a width equal to the length of the tie. With increased depth, the width for distribution can be increased on slopes of 1 horizontal to 2 vertical, with surcharge loads from the adjacent tracks not being permitted to overlap.

Total pressure from earth (active and surcharge):		
total H=	225.6 + 224.4 =	450 kN
Total resistance from soil friction at the base:	=	1592.4 kN

Since, the friction in between the concrete base and the soil is quite significant due to the total vertical reaction on the abutment, we will assume it is not needed to considerate this load for pile distribution loads.

Note: Horizontal loads from the longotudinal load on the bridge due to the traction and braking is applied in full at the abutmnet and resisted by the piles.

SAP200 RESULTS FILE: